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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/707,410	11/06/2000	Dan H. Nowlin	42390.P8182	9953

7590 12/21/2006
David J Kaplan
Blakely Sokoloff Taylor & Zafman LLP
12400 Wilshire Boulevard 7th Floor
Los Angeles, CA 90025

EXAMINER

ABRISHAMKAR, KAVEH

ART UNIT	PAPER NUMBER
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2131

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/21/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 09/707,410	Applicant(s) NOWLIN, DAN H.	
	Examiner Kaveh Abrishamkar	Art Unit 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of: .
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/23/04, 6/27/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment filed on June 27, 2006. Claims 1-24 are currently pending consideration.

Response to Arguments

2. Applicant's arguments filed June 27, 2006 have been fully considered but they are not persuasive for the following reasons:

Regarding claim 1, 11, and 21, the Applicant argues that the Cited Prior Art (CPA), Su (U.S. Patent No. 6,219,721), does not explicitly teach a "mini-OS." This argument is not found persuasive. The Applicant argues that the CPA does not teach a mini-OS because an older operating system as disclosed in Su, such as MS-DOS 4.0 or DOS 3.0 (see column 1 lines 26-31), cannot be interpreted as a mini-OS. This argument is not persuasive. The term "mini" is defined as something that is smaller than its "non-mini" counterpart. In this case, Su discloses switching between two operating systems, which may or may not be the exact same size, (though switching between two exact same operating systems is not likely). In a case where the smaller OS, such as DOS 3.0, is stored, and Windows 98 is also stored, the DOS 3.0 can be interpreted as the mini-OS as it is much smaller and has less features than then Windows 98. Furthermore, the invention is not directed towards what a mini-OS is, but

Art Unit: 2131

in fact, is directed to the mechanical switch, which is used to switch between two different operating systems. Therefore, it is respectfully maintained that the CPA does teach a "mini-OS" and the rejection for these claims is respectfully maintained.

Furthermore, regarding claims 9-10, and 24, the Applicant argues that there is not proper motivation given for combining the references of Su and Flanagan et al. (U.S. Patent No. 6,128,661). This argument is not found persuasive. Su discloses a system, which allows a switch to toggle between two different operating systems (column 2 lines 61-67). It is asserted that the operating systems are not limited to any particular kind. Flanagan discloses that mobile devices usually are based on Windows CE, which is a smaller version of the Windows operating system (column 1 lines 27-42). They have a smaller array of application as compared to the larger Windows operating system, but can perform tasks such as word processing and spread sheet programs (column 1 lines 32-36). The references do not teach away from each other, as Su switches between different operating systems, and Flanagan discloses one possible operating system that can be used in the system of Su. The benefits of using a smaller operating system (with less features) over the full-featured operating systems were well-known in the art at the time of invention, including faster loading time and less memory consumption, and therefore, it is asserted that the references were properly combined and that there was motivation at the time of invention to use the operating system disclosed by Flanagan in the system of Su.

Therefore, the rejection for the claims 1-24 is maintained and given below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 8, 11-13, 15-20, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Su (U.S. Patent No. 6,219,721).

Regarding claim 1, Su discloses:

A computer system comprising:

“a first memory subsystem to store a full operating system (OS) and a mini operating system” (Figure 1, column 2 lines 43-60);

“a mechanical switch having a first state and a second state” (Figure 1, item 900, column 2 lines 49-54);

“a first circuit to execute a boot code and to determine a state of the mechanical switch at power-on” (column 3 lines 1 – 7); and

“a second circuit to boot the full OS as a primary OS of the computer system if the first circuit determines that the mechanical switch is in the first state at power-on and to boot the mini OS as the primary OS of the computer system if the first circuit

Art Unit: 2131

determines that the mechanical switch is in the second state at power-on" (column 3 lines 1-7).

Su does not explicitly disclose a "mini OS." However, Su mentions that the computer has different operating systems, which are selected by a selection switch. Furthermore, a "mini OS" can be interpreted as an older version of an operating system which has less features and is smaller than the new version, such as MS-DOS 4.0 or DOS 3.0, as mentioned by Silvester (column 1 lines 25-32). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to select between an older OS version with less features (mini OS) and a newer version of the OS (full OS) by using a mechanical switch, to avoid reinstallation (column 1 lines 40-51).

Claim 2 is rejected as applied above in rejecting claim 1. Furthermore, Su discloses:

The computer system of claim 1, further comprising "a storage location to store a pointer to a default OS" (column 2 lines 43-60).

Claim 3 is rejected as applied above in rejecting claim 2. Furthermore, Su discloses:

The computer system of claim 2, wherein "the mechanical switch has a third state, the second circuit to boot the default OS as the primary OS of the computer system if the first circuit determines that the mechanical switch is in the third state at power-on" (column 3 lines 1 – 7).

Claim 4 is rejected as applied above in rejecting claim 2. Furthermore, Su discloses:

The computer system of claim 2, wherein "the mechanical switch has a third state and a fourth state, the second circuit to boot the full OS as the primary OS of the computer system and to make the full OS the default OS if the first circuit determines that the mechanical switch is in the third state at power-on, and to boot the mini OS as the primary OS of the computer system and to make the mini OS the default OS if the first circuit determines that the mechanical switch is in the fourth state at power on" (column 3 lines 1-7).

Claim 5 is rejected as applied above in rejecting claim 1. Furthermore, Su discloses:

The computer system of claim 1, wherein "the circuit includes a processor, and the second circuit includes the processor and a second memory subsystem into which at least a portion of the full OS or the mini OS is loaded if the mechanical switch is in the first state or the second state, respectively, at power-on" (column 3 lines 1-7).

Claim 6 is rejected as applied above in rejecting claim 3. Furthermore, Su discloses:

The computer system of claim 3, wherein "the first circuit includes a processor, and the second circuit includes the processor and a second memory subsystem into which at least a portion of the full OS or the mini OS is loaded if the mechanical switch is in the first state or the second state, respectively, at power-on" (column 3 lines 1-7).

Claim 8 is rejected as applied above in rejecting claim 1. Furthermore, Su discloses:

The computer system of claim 1, wherein "the mechanical switch is a power switch" (Figure 1, item 900, column 2 lines 49-54).

4. Claims 11-13, 15-20 are method claims analogous to the system claims rejected above, and therefore, are rejected following the same reasoning.

5. Claims 21-23 are computer-readable medium claims analogous to the system claims rejected above, and therefore, are rejected following the same reasoning.

6. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Su (U.S. Patent No. 6,219,721) in view of Lee (U.S. Patent No. 6,327,653).

Claim 7 is rejected as applied above in rejecting claim 1. Furthermore, Su discloses:

The computer system of claim 1. Su does not explicitly disclose "wherein the mechanical switch is a keyboard." Lee discloses a system wherein a user selects an operating system from a plurality of operating systems by using a keyboard connected to the keyboard controller and depressing one of a plurality of keys (column 7 lines 61-64). Su and Lee are analogous arts in that both teach methods of switching between a plurality of operating systems, one by a manual switch and the other by use of a keyboard. The button detector and system of switching between operating systems can be implemented on the system of Su by using the button detector, which communicates

Art Unit: 2131

with the CPU to select the loading of the selected operating system. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the keyboard as the mechanical switch to switch between operating systems to provide a system capable of "easily changing its operating system" (Lee column 4 lines 43-51).

Claim 14 is rejected as applied above in rejecting claim 11. Furthermore, Su discloses:

The method of claim 11. Su does not explicitly disclose "wherein the mechanical switch is a keyboard." Lee discloses a system wherein a user selects an operating system from a plurality of operating systems by using a keyboard connected to the keyboard controller and depressing one of a plurality of keys (column 7 lines 61-64). Su and Lee are analogous arts in that both teach methods of switching between a plurality of operating systems, one by a manual switch and the other by use of a keyboard. The button detector and system of switching between operating systems can be implemented on the system of Su by using the button detector, which communicates with the CPU to select the loading of the selected operating system. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the keyboard as the mechanical switch to switch between operating systems to provide a system capable of "easily changing its operating system" (Lee column 4 lines 43-51).

Art Unit: 2131

7. Claims 9-10, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Su (U.S. Patent No. 6,219,721) in view of Flanagin (U.S. Patent No. 6,128,661).

Claim 9 is rejected as applied above in rejecting claim 1. Furthermore, Su discloses:

The computer system of claim 1. Su does not disclose "wherein the full OS takes at least ten times longer to boot than the mini OS, and the full OS is at least ten times the size of the mini OS." Flanagin discloses using an Windows CE operating system in portable units. The Windows CE operating systems is a subset of the full Windows operating system and "may not have as many functions" (column 1 lines 28-40), and is designed for use on computers with less memory. Flanagin does not explicitly state that the mini OS is both ten times faster to load and is ten times smaller, but it would have been obvious that since the Windows CE software is designed for applications such as PDAs that it is much smaller and therefore, would load much faster on a PC. Therefore, it would have been obvious to use a Windows CE and a full Windows OS as the two possible selections in the operating system selection system of Su so that if the user just wanted to use "word processing, spreadsheet program, personal money managers and games" (column 1 lines 33-35), the user could just select the Windows CE, and if the user wanted to use all the functionality, the user could load the full OS. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the Windows CE of Flanagin in conjunction with the operating system selector of Su to allow the user to conserve power and time if the user just needs the operating system to perform simple tasks as described above.

Claim 10 is rejected as applied above in rejecting claim 1. Furthermore, Su does not disclose "wherein the mini OS is a subset of the full OS." Flanagan discloses using an Windows CE operating system in portable units. The Windows CE operating systems is a subset of the full Windows operating system and "may not have as many functions" (column 1 lines 28-40), and is designed for use on computers with less memory.

Flanagan does not explicitly state that the mini OS is both ten times faster to load and is ten times smaller, but it would have been obvious that since the Windows CE software is designed for applications such as PDAs that it is much smaller and therefore, would load much faster on a PC. Therefore, it would have been obvious to use a Windows CE and a full Windows OS as the two possible selections in the operating system selection system of Su so that if the user just wanted to use "word processing, spreadsheet program, personal money managers and games" (column 1 lines 33-35), the user could just select the Windows CE, and if the user wanted to use all the functionality, the user could load the full OS. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the Windows CE of Flanagan in conjunction with the operating system selector of Su to allow the user to conserve power and time if the user just needs the operating system to perform simple tasks as described above.

8. Claim 24 is a computer-readable medium claim analogous to the system claim rejected above, and therefore, is rejected following the same rationale.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaveh Abrishamkar whose telephone number is 571-272-3786. The examiner can normally be reached on Monday thru Friday 8-5.

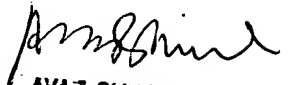
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2131

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

K.A.

KA
12/18/2006


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100